

Writing for the Sciences Workshop Neumann Library Resources

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Important URLs	Ask a Librarian!
Library Homepage: https://www.uhcl.edu/library/ Research Guides by Subject: https://uhcl.libguides.com/ Interlibrary Loan: https://uhcl.illiad.oclc.org/illiad/illiad.dll	Phone: 281-283-3910 Text: 281-816-4341 Live Chat: https://uhcl.libanswers.com/ Email: library@uhcl.edu Appointments: https://uhcl.libcal.com/appointments

Search Exercise

1. On your own device, go to the [library homepage](#).
2. Using either **OneSearch** (main search box on the homepage) or a **Database** in your major,
 - a. search for a topic for your current project* (continue to Step 3), OR
 - b. look for interesting articles within your discipline.
3. ***If you have a research topic,**
 - a. Write your topic in the space below:

- b. Brainstorm and write down the two or three key concepts you identified for the topic in the top row of the table below.
- c. Next, think about and write down relevant alternate keywords, synonyms, and related words in the spaces below your main concepts.
- d. Try various combinations of your search terms and make note of any interesting results you find. You might start with two keywords, then find more keywords as you search.

	<i>Concept #1:</i>		<i>Concept #2:</i>		<i>Concept #3:</i>
	OR		OR		OR
Alternative Keywords, Synonyms, & Related Words	A N D		A N D		
	OR		OR		OR

Example:

Topic: What are the ethical issues surrounding mandatory vaccinations in school children?

Alternative Keywords, Synonyms, & Related Words	Concept #1: vaccinations	A N D	Concept #2: mandatory	A N D	Concept #3: School children
	OR		OR		OR
	immunizations		compulsory		students
	OR		OR		OR
	inoculation		required		young children

Example in OneSearch:

After initial search, add limiters for **Peer-reviewed Journals** and **Articles**:

The screenshot shows the OneSearch interface. The search filters are set to 'vaccinations or immunizations or inoculation', 'mandatory or compulsory or required', and 'school children or students'. The active filters are 'Peer-reviewed Journals' and 'Articles'. The search results are displayed on the right, showing two articles related to compulsory vaccination laws and obligations.

Example in MEDLINE with Full Text (EBSCO):

Apply specialized limiters for **Publication Type**, **Age**, etc. either before or after the initial search:

The screenshot shows the MEDLINE with Full Text (EBSCO) interface. The search filters are set to 'vaccinations or immunizations or inoculation', 'mandatory or compulsory or required', and 'school children or students'. The search results are displayed on the right, showing a list of articles related to cancer. The publication type limiter is set to 'Journal Article'.

Search Tips

and	friendship AND online social networks	narrows results by finding both terms
or	cognition OR intuition	broadens results by finding either term
not	attention span NOT adhd	narrows by excluding records that contain <i>adhd</i>
* (wildcard)	motivat*	broadens by finding <i>motivate, motivates, motivation, etc.</i>

- Identify your most important keywords or short, common phrases
- Use AND, OR, possibly NOT, and when appropriate, wildcards (*)
 - divorce and risk factors
 - (anxiety or stress) and resilien*
- Narrow results by restricting terms to a specific field (subject terms, abstract, title, etc.)
- Narrow results with limiters (peer-reviewed, document type, language, etc.)
- Narrow results by adding additional search terms/concepts with AND
 - (anxiety or stress) and resilien* and college students
- Narrow results by using quotation marks for an “exact phrase”
- Broaden results by adding alternative search terms with OR
 - (divorce or marital separation) and risk factors
 - When using subject terms, include any relevant narrower terms
 - In MEDLINE with Full Text (EBSCO), consider using the Explode feature in the subject thesaurus (MeSH: medical subject headings)
- Broaden results by simplifying your search—remove less critical concepts and limiters
- If you’re using **OneSearch**:
 - Syntax for a nested search if you’re not using advanced search:
 - (shy* OR timid*) AND (resilience OR “coping behavior”)
 - Select desired limiters (filters/facets) on results screen
- When researching a topic in depth, don’t limit results to full text. If a database doesn’t provide full text, use **Find It @ UHCL** links in the results to check for full text from another source. If you can’t find full text, look for a link to submit an **article request** to obtain the article through the library’s **ILLiad** interlibrary loan service.
- Check the works cited list in relevant documents for other resources that could be helpful
- Try more than one database if needed
- When you have questions or problems, **ask a librarian**

Comparing OneSearch vs. Subject Databases

	OneSearch	Subject Databases
Search Scope	Searches across almost all UHCL databases & UH System library physical resources (books, media, etc.)	Usually searches a single database’s subject-specific index (which may or may not include full text)
Search Strategy	Allows natural language searching (long phrases are okay, similar to Google, but keywords will work better)	Typically require use of keywords and Boolean operators
Search Features	Somewhat limited search functionality (limiters are generalized)	Subject-specific limiters and enhanced search functions are often available, with high variance between databases

Recommended Science Subject Databases

When identifying a suitable database, make note of the descriptor to understand its contents and special features, including:

- **Subject coverage** (specific disciplines or multidisciplinary/general coverage),
- **Types of resources included** (articles, conference proceedings, trade publications), and
- **Full text availability** (most databases include some full text; click “Find It @ UHCL” to link to other sources or request through ILLiad).

Web of Science	Identifies articles and references from journals in science, the social sciences, and art and humanities; selected full text available via Find It @ UHCL; results can be sorted by times cited; use Cited Reference search to find works that cite an earlier article or publication
PLOS (Public Library of Science)	Full text articles from journals in science and medicine, including PLOS ONE, PLOS Biology, PLOS Genetics, PLOS Medicine, PLOS Pathogens, and more
BIOSIS Previews	Indexes biomedical and life sciences research in theoretical and applied biology; provides organism, taxa, development stage, chemical role, and other biology-specific limiters
arXiv	Open-access archive for e-print research papers in physics, mathematics, computer science, and more
MEDLINE with Full Text (EBSCO)	Selected full text articles from biomedical and related journals, with clinical guidelines and more from the National Library of Medicine
MathSciNet (EBSCO)	Indexes American Mathematical Society journals, books, and proceedings, with selected full text via Find It @ UHCL
ScienceDirect	Selected full text articles from Elsevier journals in the physical sciences/engineering, life sciences, health sciences, and social sciences/humanities
Science and Technology Collection	Selected full text articles from journals, trade, and popular magazines covering scientific and technical fields
SciFinder	Selected full text articles from journals, technical reports, books, and more in chemistry, biology, biotechnology, and engineering; first-time user registration required
IEEE Xplore Digital Library	Selected full text for journal articles and proceedings of the Institute of Electrical and Electronics Engineers (IEEE) and the Institution of Engineering and Technology; includes full text of active IEEE standards
IOP Science	Selected full text articles from physics-related journals; includes indexing for ProQuest Dissertations and Theses results
PubMed (UHCL)	Includes UHCL subscriptions; off-campus access restricted to UHCL users; indexes "biomedical literature from MEDLINE, life science journals, and online books" with selected full text
INSPEC	Selected full text articles from journals in science, engineering, and technology; plus conference proceedings, reports, books, and more
SciTech Premium Collection	Selected full text articles on natural science, engineering and technology, from scholarly, trade, and industry journals, technical reports, and proceedings